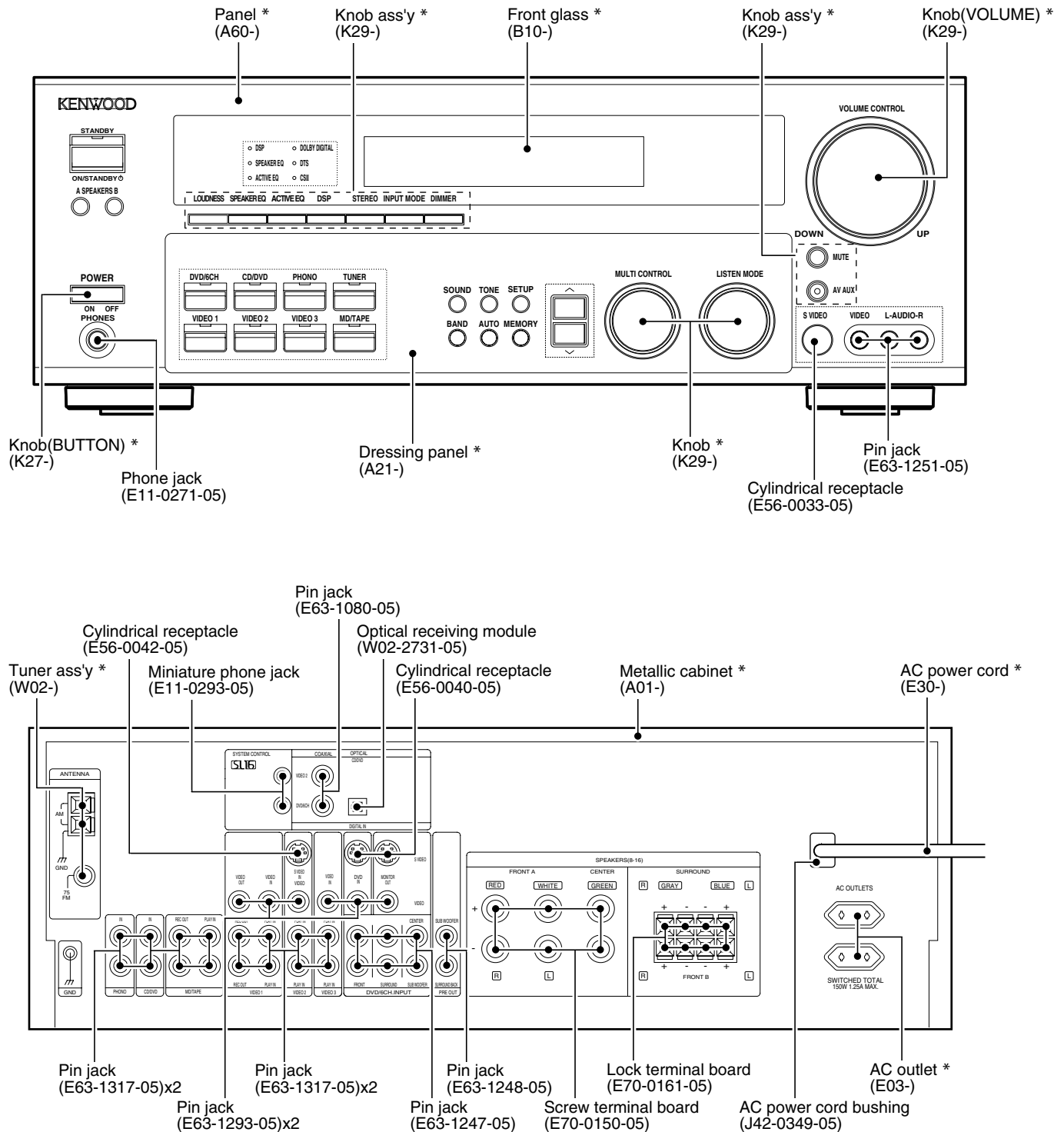


KRF-V7070D/V7070D-S/V8070D KRF-V8070D-S/X9070D/X9070D-S VR-7060/7070/7080 SERVICE MANUAL

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Illust. is KRF-V7070D.

* Refer to parts list on page 29 .



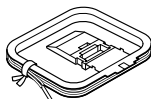
ACCESSORIES / CAUTIONS

Accessories

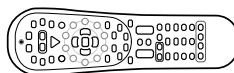
FM indoor antenna (1)
(T90-0877-05)



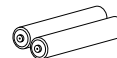
AM loop antenna (1)
(T90-0893-05)



RF remote antenna (1)
Refer to the table on this page below.



Batteries (R6/AA) (2)



There is a different shape of remote control in every area.

REMOTE CONTROL vs MODEL

MODEL	ABBRI.	PARTS #	BATTERY COVER
KRF-V7070D	E7	7	A70-1623-05
KRF-V7070D-S	E1		A09-1274-08
VR-7060	K6	8	A70-1622-05
VR-7060	P6		A09-1274-08
KRF-V8070D	E8		A70-1623-05
KRF-V8070D-S	E2		A09-1274-08
KRF-X9070D	Y1	9	A70-1619-05
KRF-X9070D	E9		A09-1275-08
KRF-X9070D-S	E3		A70-1621-05
VR-7070	K7		A09-1274-08
VR-7070	P7		A70-1620-05
VR-7080	K8		A09-1274-08
VR-7080	P8		A70-1619-05
VR-7080	P8		A09-1275-08

Cautions

Resetting the Microcomputer

The microcomputer may malfunction (unit cannot be operated, or shows an erroneous display) if the power cord is unplugged while the power is ON, or due to some other external factor. If this happens, execute the following procedure to reset the microcomputer and return the unit to its normal operating condition.

- Please note that resetting the microcomputer will clear the contents of the memory and returns the unit to the state it was in when it left the factory.

Unplug the power cord from the wall outlet, then plug it back in while holding down the POWER ON/STANDBY  key.

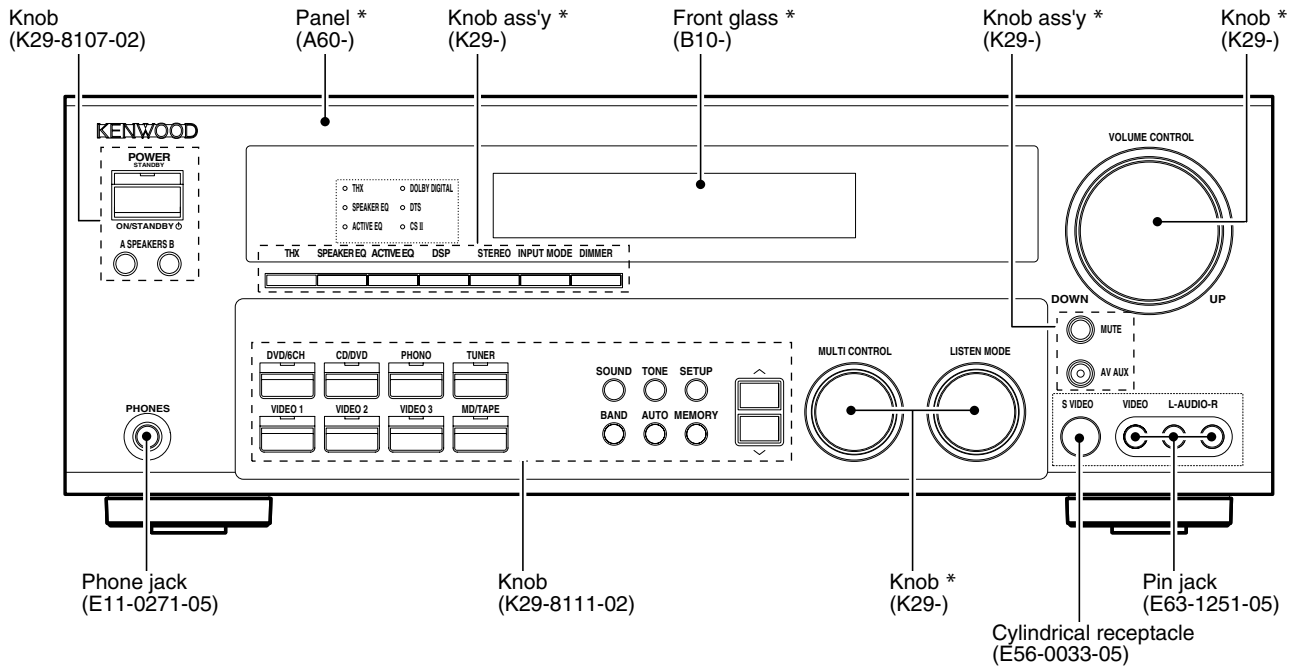
Memory back up function

Please note that the following items will be deleted from the unit's memory if the power cord is disconnected from the AC outlet for approximately 1 day.

- Power mode.
- Input selector settings.
- Picture output.
- Speaker ON/OFF.
- Volume level.
- BASS, TREBLE, INPUT level.
- TONE ON/OFF.
- LOUDNESS ON/OFF.
- Dimmer level.
- MD/TAPE settings.
- Listen mode setting.
- Speaker settings.
- SW RE-MIX ON/OFF.
- Distance setting.
- Bass peak level.
- Input mode setting.
- Midnight mode setting.
- PRO LOGICII mode setting.
- CS II mode setting.
- Broadcast band.
- Frequency setting.
- Preset stations.
- Tuning mode.
- THX mode.
- DSP mode.
- ACTIVE EQ mode.
- SPEAKER EQ mode.

EXTERNAL VIEW / ADJUSTMENT

EXTERNAL VIEW



Illust. is VR-7060.

* Refer to parts list on page 29 .

ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	RECEIVER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
AUDIO SECTION SPEAKER : A							
<1>	IDLE CURRENT	-	CN11, FL ch. CN10, FR ch. CN14, SL ch. CN13, SR ch. CN12, C ch. CN15, SW ch. X09(A/5)	(FRONT 2ch MODE) Volume: Minimum	VR1(FL) VR2(FR) VR3(SL) VR4(SR) VR5(CENTER) VR6(SUB WOOFER) X09(A/5)	Adjust every potentiometer 10 minutes later after turned the power on.	

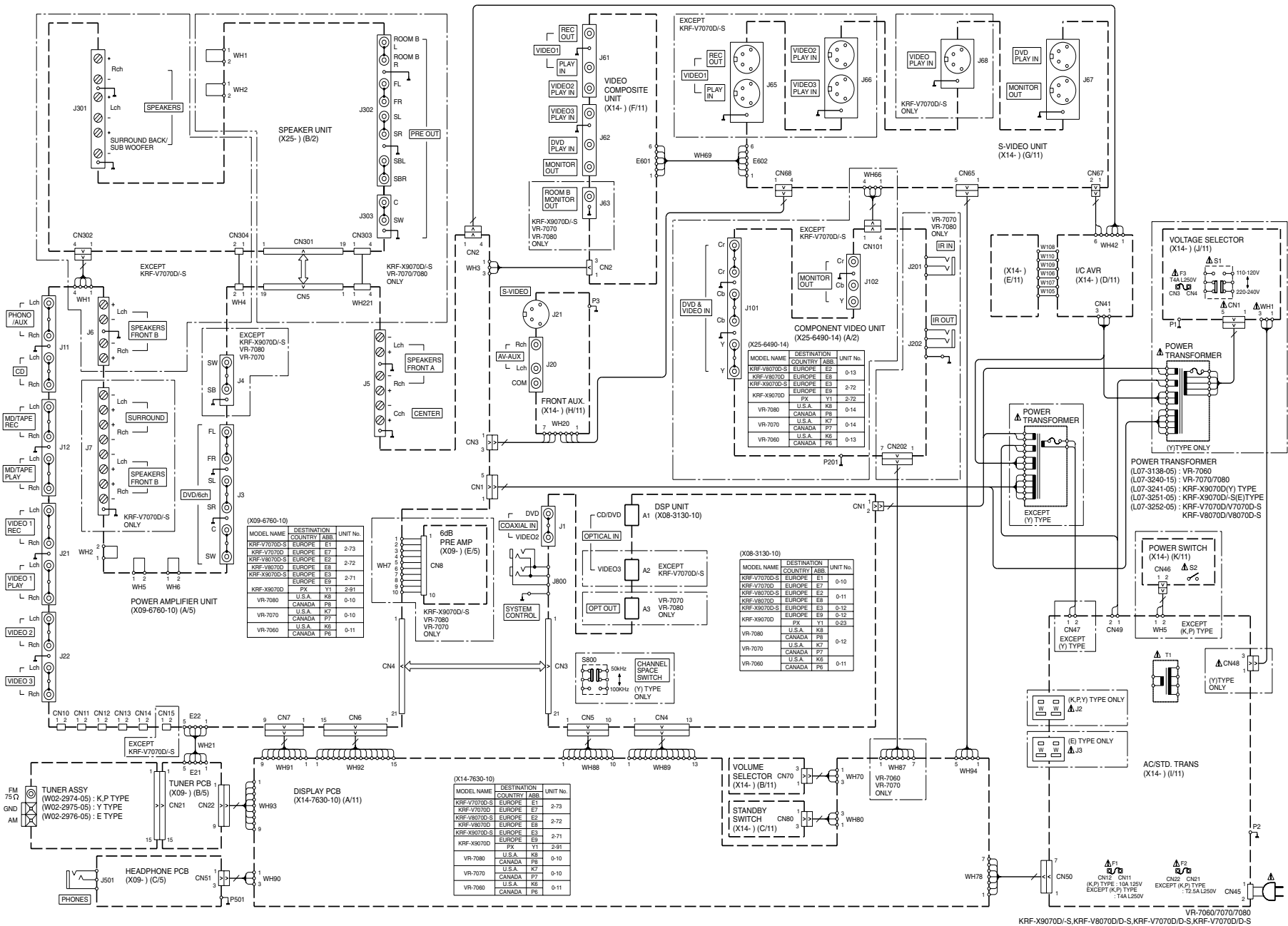
Idling Current Adjustment

All power amplifier stage need idling current adjustment after the installation of TRAIT transistor.

1. Connect a voltmeter to CN11 with the correct polarity as indicated by the PCB silk print.
2. Adjust the preset, VR1 to get 8.8mV (Idling current = 20mA) at the voltmeter reading.
3. Repeat step 1 and 2 for all other channels.

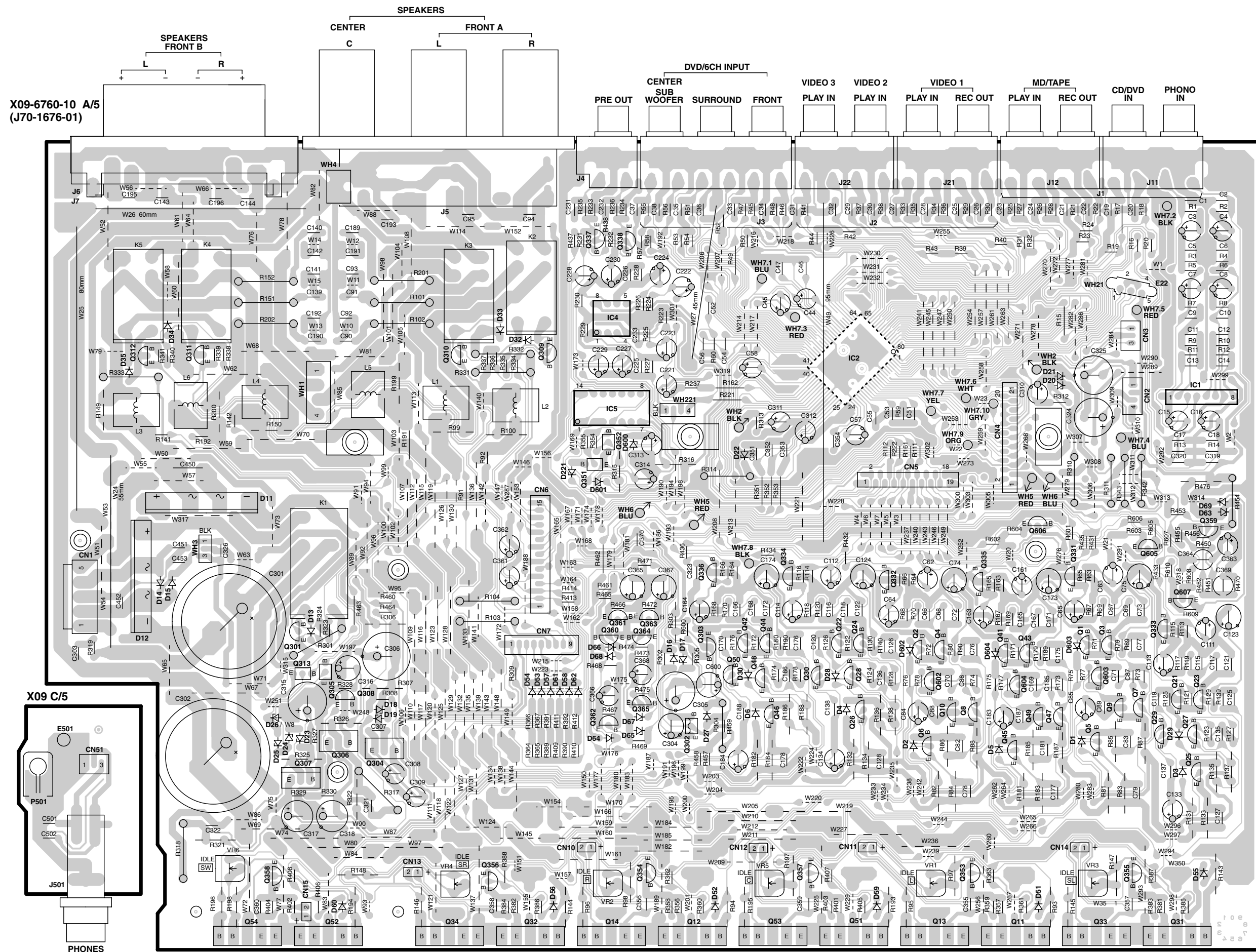
KRF-V7070D/V8070D/X9070D/VR-7060/7070/7080

INTERCONNECTION DIAGRAM



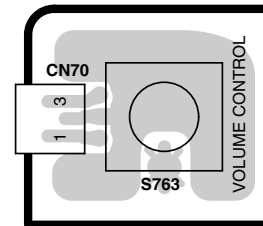
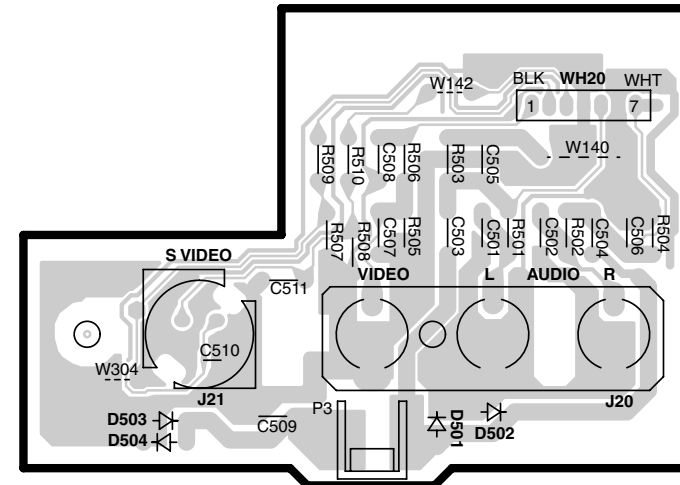
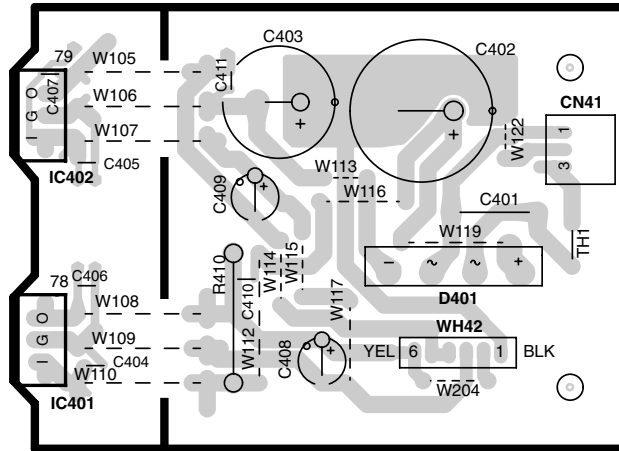
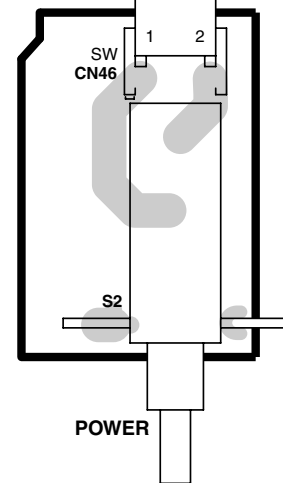
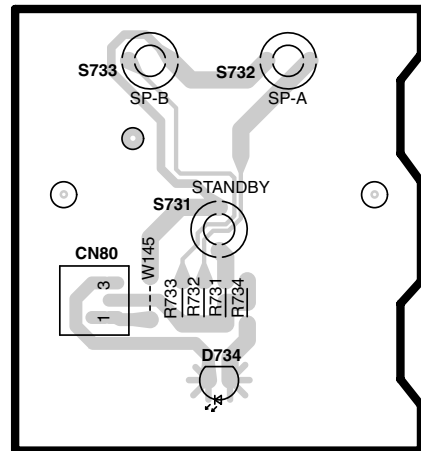
VR-7060/7070/7080
KRF-X9070D-S, KRF-V8070D-D-S, KRF-V7070D-D-S, KRF-V7070D-D-S

PC BOARD (Component side view)



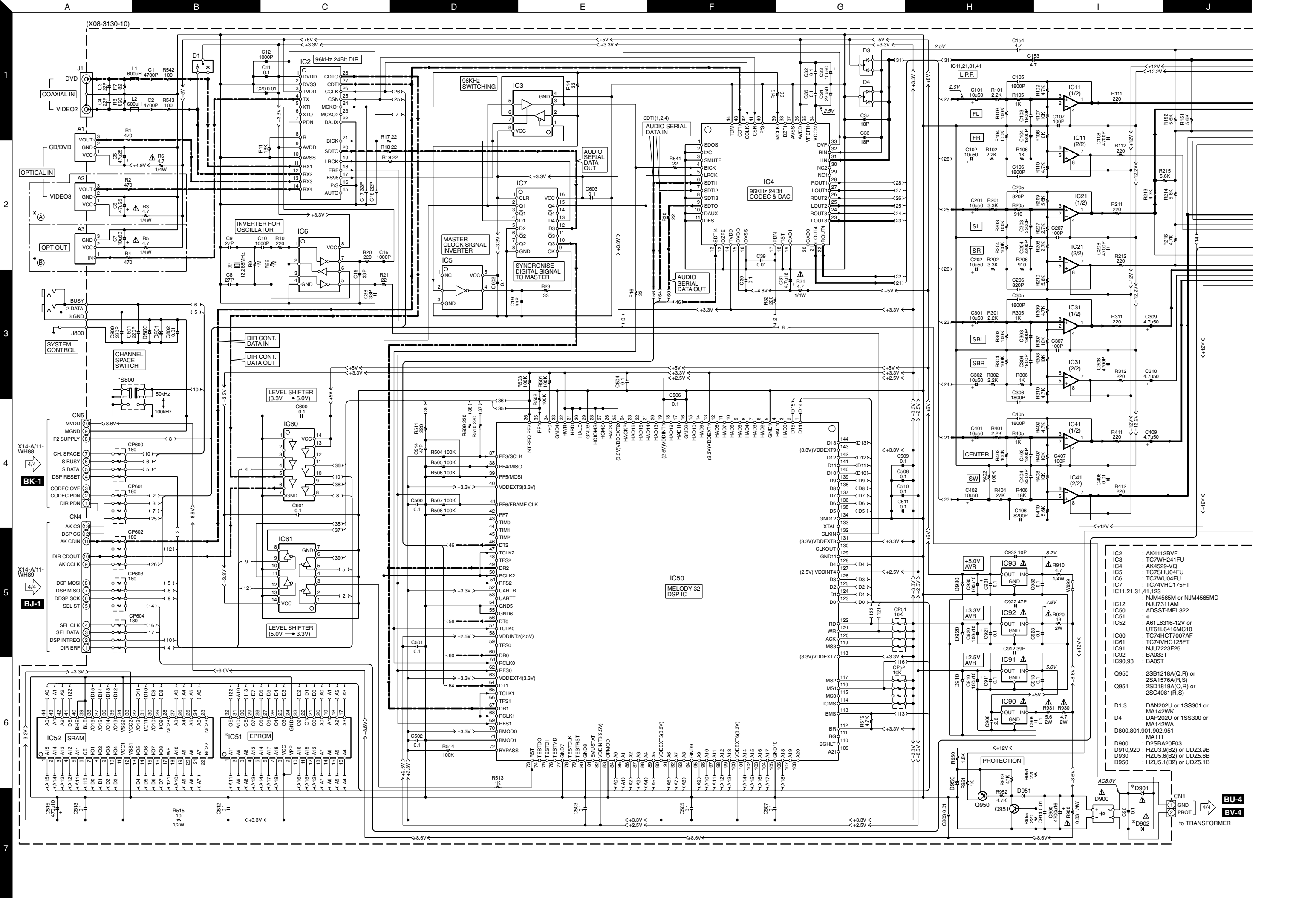
Refer to the schematic diagram for the value of resistors and capacitors.

K	L	M	N	O	P	Q	R	S	T
---	---	---	---	---	---	---	---	---	---



1
2
3
4
5
6
7





(X09-6760-10)

MODEL NAME	DESTINATION COUNTRY	ABB.	UNIT No.	B	D	C	E	F	C64,65, 163	C74,75, 173	C82,83, 181	C84,85, 183	C90,91,139, 140,189	C92,93,141, 142,191	C143, 144	C190	C192	C227, 228
KRF-V7070D-S	EUROPE	E1	2-73	NO	YES	NO	NO	3.3u50	100u25	YES	22u50	0.22	YES	YES	NO	NO	NO	NO
KRF-V7070D	EUROPE	E7	2-72	YES	YES	NO	NO	3.3u50	100u25	YES	22u50	0.22	YES	NO	0.22	YES	YES	YES
KRF-V8070D-S	EUROPE	E2	2-71	YES	NO	YES	NO	3.3u100	220u10	NO	47u25	0.22	YES	NO	0.22	YES	YES	YES
KRF-V8070D	EUROPE	E8	2-71	YES	NO	YES	NO	3.3u100	220u10	NO	47u25	0.22	YES	NO	0.22	YES	YES	YES
KRF-X9070D-S	EUROPE	E3	2-91	YES	NO	YES	NO	3.3u100	220u10	NO	47u25	0.22	YES	NO	0.22	YES	YES	YES
KRF-X9070D	EUROPE	E9	2-91	YES	NO	YES	NO	3.3u100	220u10	NO	47u25	0.22	YES	NO	0.22	YES	YES	YES
KRF-X9070D	PX	Y1	2-91	YES	NO	YES	NO	3.3u100	220u10	NO	47u25	0.22	YES	NO	0.22	YES	YES	YES
VR-7080	U.S.A.	K8	0-10	YES	NO	YES	NO	3.3u100	220u10	NO	47u25	0.1	NO	NO	0.1	NO	YES	YES
VR-7080	CANADA	P8	0-10	YES	NO	YES	NO	3.3u100	220u10	NO	47u25	0.1	NO	NO	0.1	NO	YES	YES
VR-7070	U.S.A.	K7	0-10	YES	NO	YES	NO	3.3u100	220u10	NO	47u25	0.1	NO	NO	0.1	NO	YES	YES
VR-7070	CANADA	P7	0-10	YES	NO	YES	NO	3.3u100	220u10	NO	47u25	0.1	NO	NO	0.1	NO	YES	YES
VR-7080	U.S.A.	K6	0-11	YES	YES	NO	NO	3.3u50	100u25	YES	22u50	0.1	NO	NO	0.1	NO	YES	YES
VR-7080	CANADA	P6	0-11	YES	YES	NO	NO	3.3u50	100u25	YES	22u50	0.1	NO	NO	0.1	NO	YES	YES

(X09-6760-10)

MODEL NAME	DESTINATION COUNTRY	ABB.	UNIT No.	C301, 302	C305	C307	C322	C326	C363	C369	C609, 610	CN5	CN15	D23	D24
KRF-V7070D-S	EUROPE	E1	2-73	4700u75 C90-5772-05	100u63	220P	15P	NO	22u50	33u16	NO	NO	NO	MTZJ10(B) or RD10ES(B)	MTZJ10(B) or RD10ES(B)
KRF-V7070D	EUROPE	E7	2-72	4700u75 C90-5772-05	100u63	220P	15P	NO	22u50	33u16	NO	NO	YES	MTZJ10(B) or RD10ES(B)	MTZJ10(B) or RD10ES(B)
KRF-V8070D-S	EUROPE	E2	2-71	10000u75 C90-5771-05	100u63	180P	12P	YES	47u25	22u25	YES	YES	YES	MTZJ10(B) or RD10ES(B)	MTZJ10(B) or RD10ES(B)
KRF-V8070D	EUROPE	E8	2-71	10000u75 C90-5771-05	100u63	180P	12P	YES	47u25	22u25	NO	YES	YES	MTZJ11(B) or RD11ES(B)	MTZJ15(B) or RD15ES(B)
KRF-X9070D-S	EUROPE	E3	2-91	10000u75 C90-5749-05	100u35	180P	12P	YES	47u25	22u25	NO	YES	YES	MTZJ10(B) or RD10ES(B)	MTZJ15(B) or RD15ES(B)
KRF-X9070D	EUROPE	E9	2-91	10000u75 C90-5749-05	100u35	180P	12P	YES	47u25	22u25	NO	YES	YES	MTZJ10(B) or RD10ES(B)	MTZJ15(B) or RD15ES(B)
VR-7080	U.S.A.	K8	0-10	10000u75 C90-5749-05	100u35	180P	12P	YES	47u25	22u25	NO	YES	YES	MTZJ10(B) or RD10ES(B)	MTZJ15(B) or RD15ES(B)
VR-7080	CANADA	P8	0-10	10000u75 C90-5749-05	100u35	180P	12P	YES	47u25	22u25	NO	YES	YES	MTZJ10(B) or RD10ES(B)	MTZJ15(B) or RD15ES(B)
VR-7070	U.S.A.	K7	0-10	10000u75 C90-5749-05	100u35	180P	12P	YES	47u25	22u25	NO	YES	YES	MTZJ10(B) or RD10ES(B)	MTZJ15(B) or RD15ES(B)
VR-7070	CANADA	P7	0-10	10000u75 C90-5749-05	100u35	180P	12P	YES	47u25	22u25	NO	YES	YES	MTZJ10(B) or RD10ES(B)	MTZJ15(B) or RD15ES(B)
VR-7080	U.S.A.	K6	0-11	4700u75 C90-5775-05	100u35	220P	15P	NO	22u50	33u16	NO	NO	YES	MTZJ10(B) or RD10ES(B)	MTZJ15(B) or RD15ES(B)
VR-7080	CANADA	P6	0-11	4700u75 C90-5775-05	100u35	220P	15P	NO	22u50	33u16	NO	NO	YES	MTZJ10(B) or RD10ES(B)	MTZJ15(B) or RD15ES(B)

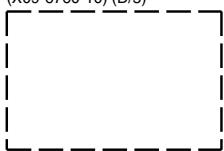
(X09-6760-10)

MODEL NAME	DESTINATION COUNTRY	ABB.	UNIT No.	D25	D26	J4	J6	J7	K2-5	L6	Q313	R65, 66	R79,80,129, 130,179	R180	R200, 202	R303
KRF-V7070D-S	EUROPE	E1	2-73	MTZJ24(B) or RD24ES(B)	NO	YES	NO	YES	S76-0098-05	NO	NO	1.5K	430	NO	NO	1
KRF-V7070D	EUROPE	E7	2-72	MTZJ24(B) or RD24ES(B)	NO	YES	NO	YES	S76-0098-05	YES	NO	1.5K	430	2K	YES	1
KRF-V8070D-S	EUROPE	E2	2-71	MTZJ24(B) or RD24ES(B)	YES	NO	YES	NO	S76-0098-05	YES	YES	2.2K	1.6K	1.6K	YES	1
KRF-V8070D	EUROPE	E8	2-71	MTZJ24(B) or RD24ES(B)	YES	NO	YES	NO	S76-0098-05	YES	YES	2.2K	1.6K	1.6K	YES	1
KRF-X9070D-S	EUROPE	E3	2-91	MTZJ30(B) or RD30ES(B)	NO	NO	YES	NO	S76-0045-15	YES	NO	2.2K	1.6K	1.6K	YES	560
KRF-X9070D	EUROPE	E9	2-91	MTZJ30(B) or RD30ES(B)	NO	NO	YES	NO	S76-0045-15	YES	NO	2.2K	1.6K	1.6K	YES	560
VR-7080	U.S.A.	K8	0-10	MTZJ24(B) or RD24ES(B)	NO	NO	YES	NO	S76-0045-15	YES	NO	2.2K	1.6K	1.6K	YES	560
VR-7080	CANADA	P8	0-10	MTZJ24(B) or RD24ES(B)	NO	NO	YES	NO	S76-0045-15	YES	NO	2.2K	1.6K	1.6K	YES	560
VR-7070	U.S.A.	K7	0-10	MTZJ24(B) or RD24ES(B)	NO	NO	YES	NO	S76-0045-15	YES	NO	2.2K	1.6K	1.6K	YES	560
VR-7070	CANADA	P7	0-10	MTZJ24(B) or RD24ES(B)	NO	NO	YES	NO	S76-0045-15	YES	NO	2.2K	1.6K	1.6K	YES	560
VR-7080	U.S.A.	K6	0-11	MTZJ24(B) or RD24ES(B)	NO	YES	YES	NO	S76-0045-15	YES	NO	1.5K	390	1.6K	YES	1
VR-7080	CANADA	P6	0-11	MTZJ24(B) or RD24ES(B)	NO	YES	YES	NO	S76-0045-15	YES	NO	1.5K	390	1.6K	YES	1

(X09-6760-10)

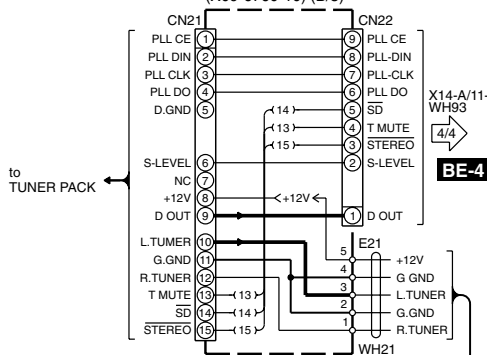
MODEL NAME	DESTINATION COUNTRY	ABB.	UNIT No.	R304	R317	R318	R358,359, 383,384,403	R404	R413, 414	R470	R603, 604	W3,4	W5-7, 20-23	W8	W10-15	WH1, 4	WH7, 221
KRF-V7070D-S	EUROPE	E1	2-73	10K	1.2K	1.5K	10K	NO	1.5K	YES	1.5K	NO	YES	YES	NO	NO	NO
KRF-V7070D	EUROPE	E7	2-72	10K	1.2K	1.5K	10K	10K	1.5K	YES	1.5K	NO	YES	YES	NO	YES	NO
KRF-V8070D-S	EUROPE	E2	2-71	10K	1.2K	1.5K	9.1K	9.1K	1.5K	NO	470	YES	NO	NO	NO	YES	YES
KRF-V8070D	EUROPE	E8	2-71	10K	1.2K	1.5K	9.1K	9.1K	1.5K	NO	470	YES	NO	NO	NO	YES	YES
KRF-X9070D-S	EUROPE	E3	2-91	8.2K	2.2K	2.2K	9.1K	9.1K	1.2K	NO	470	YES	NO	YES	NO	YES	YES
KRF-X9070D	EUROPE	E9	2-91	8.2K	2.2K	2.2K	9.1K	9.1K	1.2K	NO	470	YES	NO	YES	NO	YES	YES
VR-7080	U.S.A.	K8	0-10	8.2K	1.2K	1.5K	9.1K	9.1K	1.2K	NO	470	YES	NO	YES	YES	YES	YES
VR-7080	CANADA	P8	0-10	8.2K	1.2K	1.5K	9.1K	9.1K	1.2K	NO	470	YES	NO	YES	YES	YES	YES
VR-7070	U.S.A.	K7	0-10	8.2K	1.2K	1.5K	9.1K	9.1K	1.2K	NO	470	YES	NO	YES	YES	YES	YES
VR-7070	CANADA	P7	0-10	8.2K	1.2K	1.5K	9.1K	9.1K	1.2K	NO	470	YES	NO	YES	YES	YES	YES
VR-7080	U.S.A.	K6	0-11	10K	1.2K	1.5K	10K	10K	1.2K	YES	1.5K	NO	YES	YES	YES	YES	NO
VR-7080	CANADA	P6	0-11	10K	1.2K	1.5K	10K	10K	1.2K	YES	1.5K	NO	YES	YES	YES	YES	NO

(X09-6760-10) (D/5)

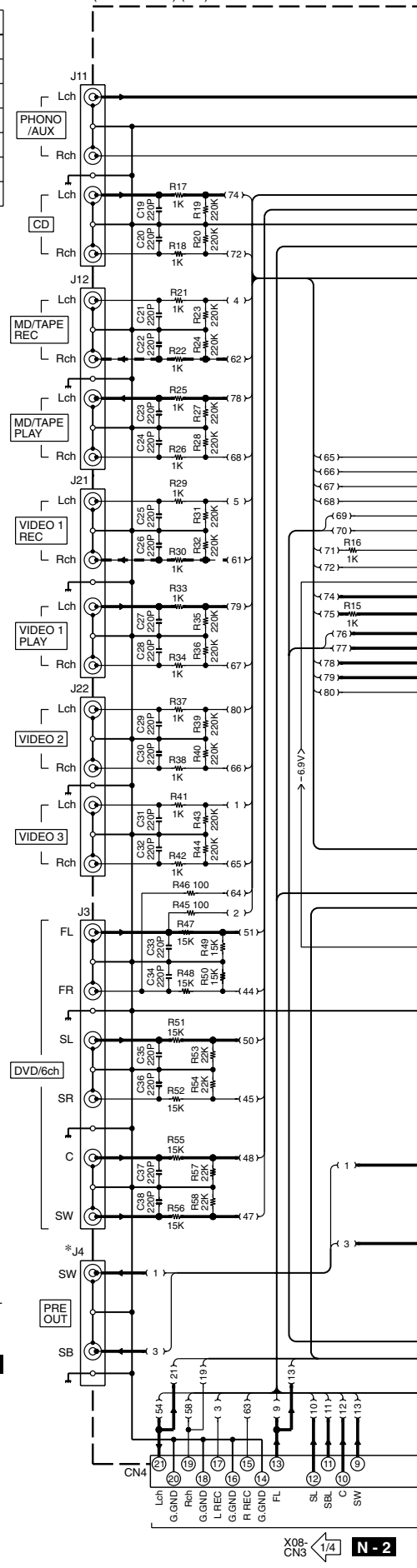


--- RECORDING LINE
 --- SIGNAL LINE
 --- GND LINE
 --- +B LINE
 --- -B LINE

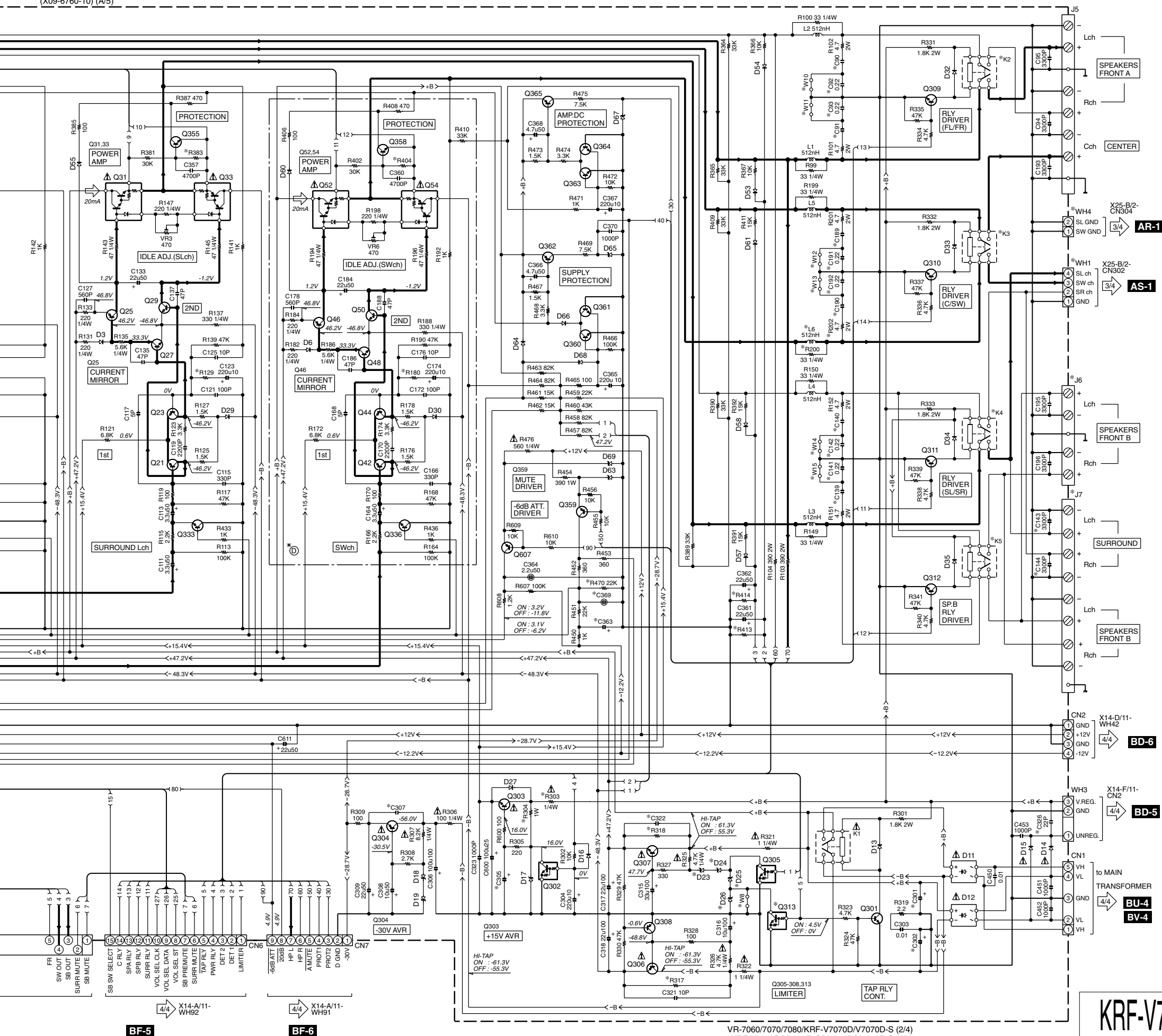
(X09-6760-10) (B/5)



(X09-6760-10) (A/5)







CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

KRF-V7070D/V8070D/X9070D/VR-7060/7070/7080

VR-7060/7070/7080/KRF-V7070D/V7070D-S (2/4)
KRF-V8070D/V8070D-S/X9070D/X9070D-S (2/4)

Y05-4700-10

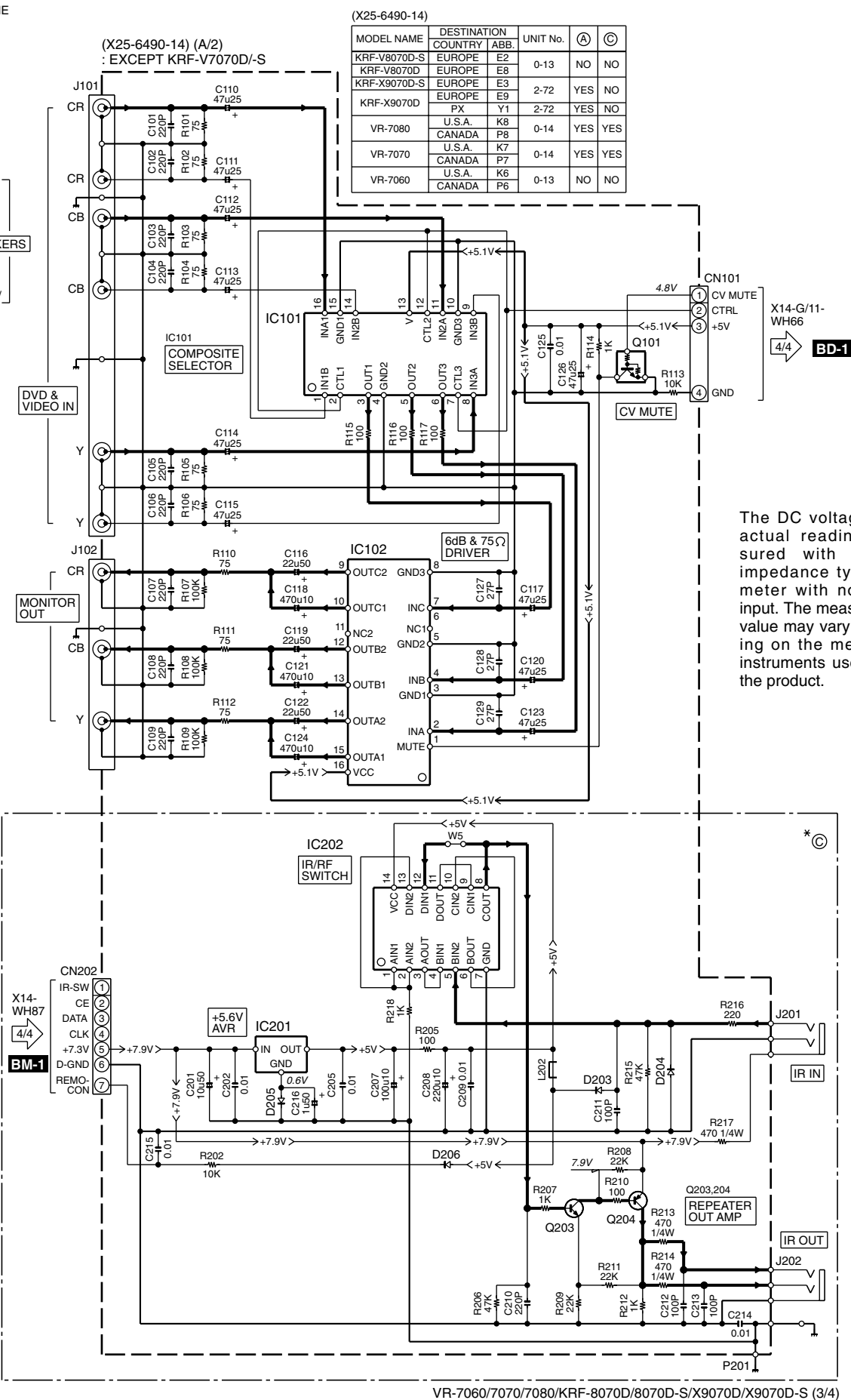
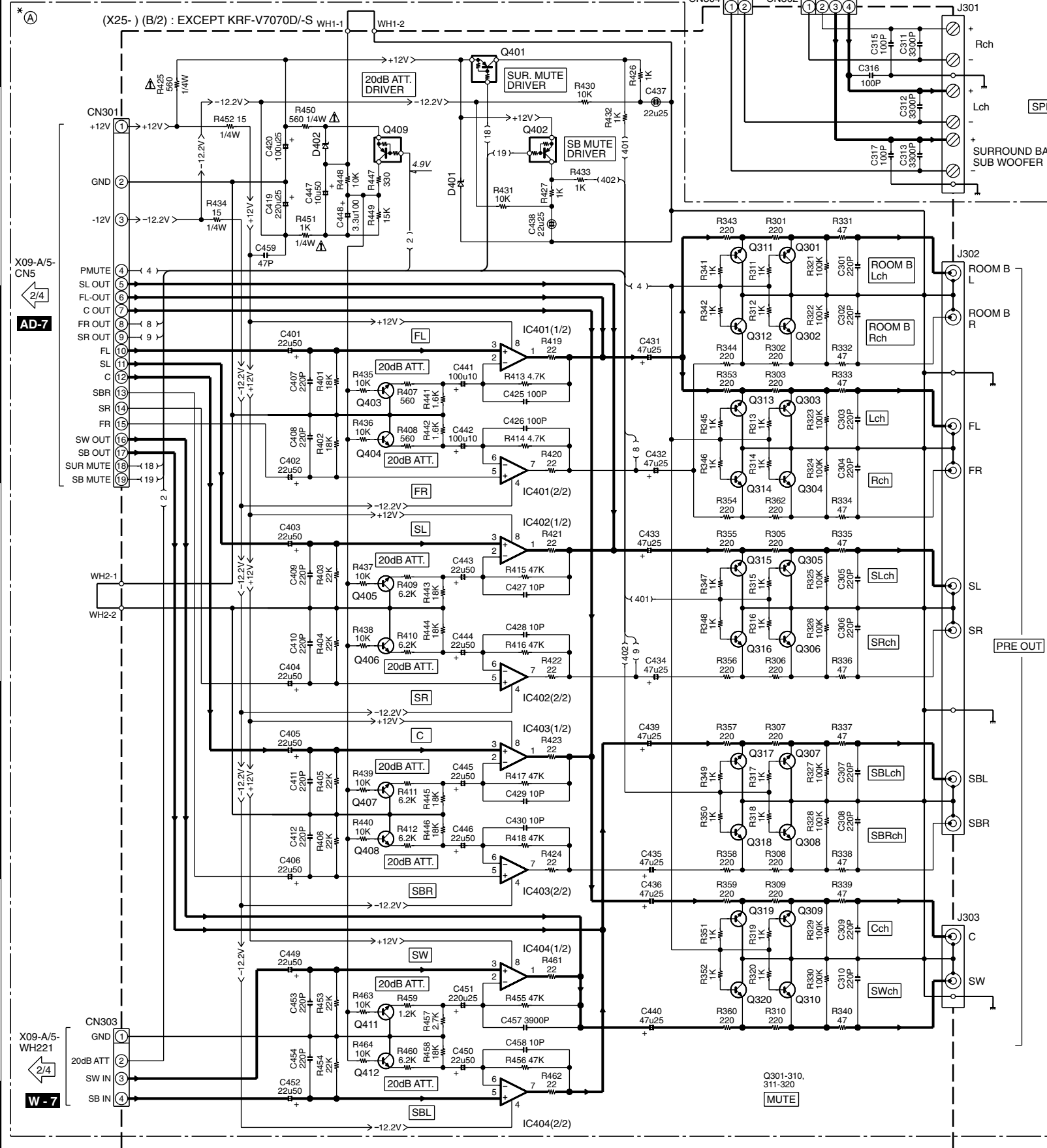
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IC101 : NJM2284D
 IC102 : BA766FS
 IC201 : BA05T
 IC202 : TC74HC00AP
 IC401,403 : NJM4580D-D
 IC402,404 : NJM4565D-D

Q101 : UN4212 or DTC124ESA
 Q203 : KTC3199(Y,GR) or 2SC2785(F,E) or 2SC1740S(Q,R)

Q204 : KTA1267(Y,GR) or 2SA1175(F,E) or 2SA933AS(Q,R) or 2SC2878(B) or DTA124ESA or UN4112

D203-206 : 1SS133 or HSS104A
 D401 : MTZJ3.9(B) or RD3.9ES(B)
 D402 : MTZJ5.1(B) or RD5.1ES(B)



(X25-6490-14)

MODEL NAME	DESTINATION COUNTRY	ABB	UNIT No.	(A)	(C)
KRF-V8070D-S	EUROPE	E2	0-13	NO	NO
KRF-V8070D	EUROPE	E8	2-72	YES	NO
KRF-X9070D-S	EUROPE	E3	2-72	YES	NO
KRF-X9070D	EUROPE	E9	2-72	YES	NO
VR-7080	U.S.A.	K8	0-14	YES	YES
VR-7070	CANADA	P8	0-14	YES	YES
VR-7060	U.S.A.	K7	0-14	YES	YES
VR-7060	CANADA	P7	0-13	NO	NO

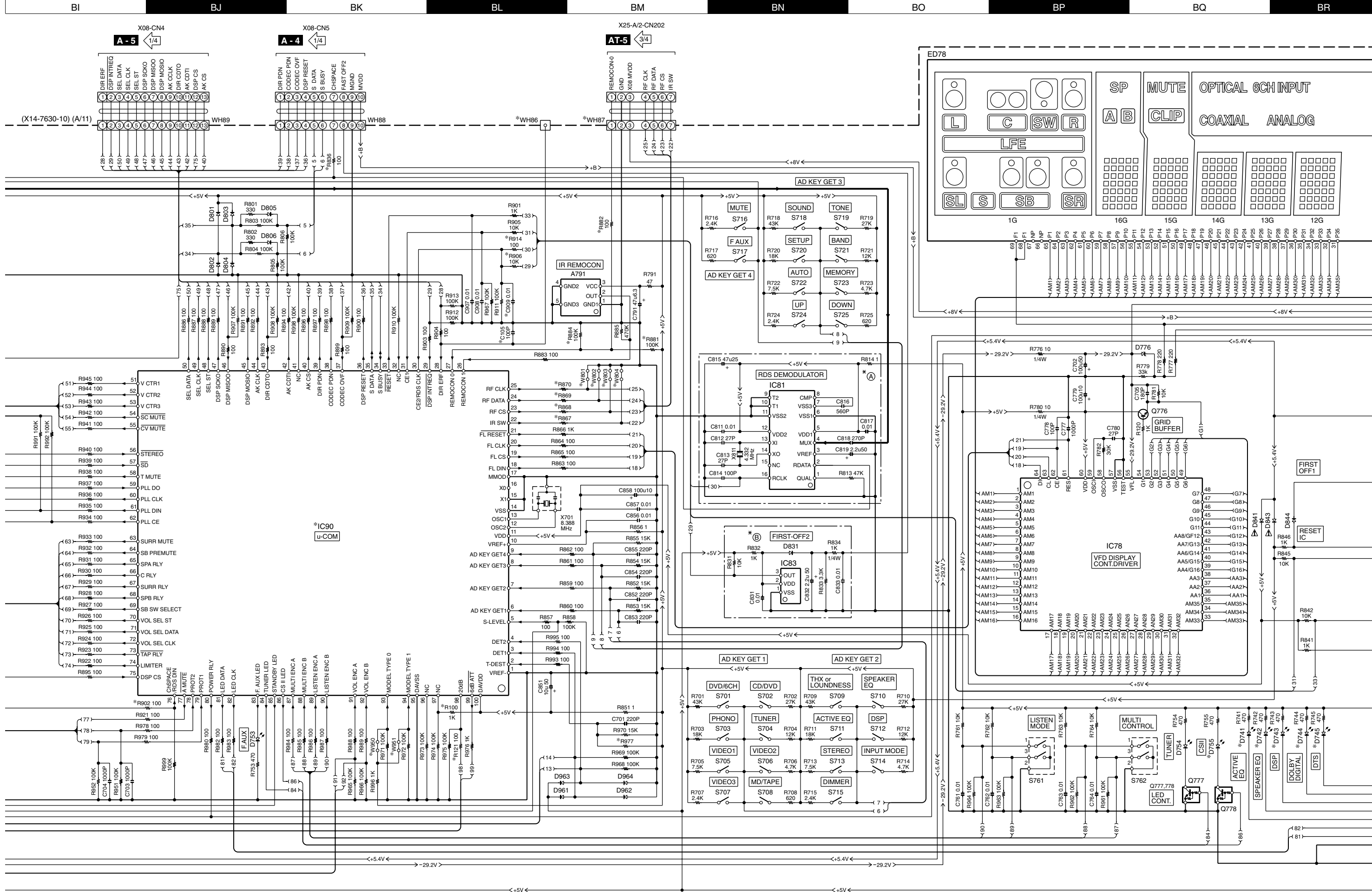
The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

Y05-4700-10

KENWOOD

KRF-V7070D/V8070D/X9070D/VR-7060/7070/7080



(X14-7630-10) (A/11)

